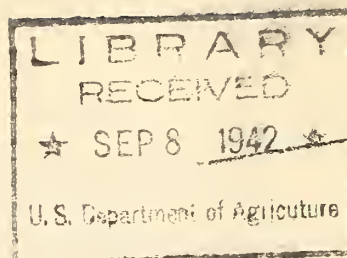


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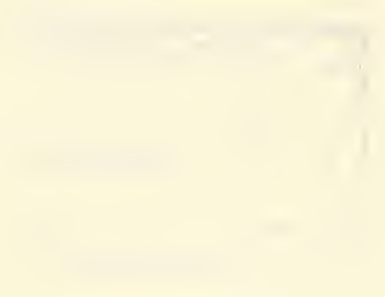
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BLISTER RUST AND WHITE PINE  
DEMONSTRATION AREAS

NEW YORK

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# BLISTER RUST AND WHITE PINE

## DEMONSTRATION AREAS

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\*Areas to be added later as located.

# THE HISTORY OF THE

## UNITED STATES OF AMERICA

1776-1876

The history of the United States of America is a story of growth and development. It begins with the first settlers who came to the continent in search of a new life. They found a land of opportunity and freedom, and they built a nation that has become a model for the world. The story is one of struggle and triumph, of challenges and achievements. It is a story that has inspired generations and will continue to do so for many years to come.

The early years of the nation were marked by the struggle for independence from British rule. The American Revolution was a turning point in the country's history, leading to the birth of a new nation. The Constitution was drafted and signed, establishing the framework for the government. The years following the Revolution were a time of growth and expansion, as the nation's territory increased and its population grew.

The mid-19th century was a period of great change and conflict. The issue of slavery became a major point of contention, leading to the Civil War. This war was a defining moment in the nation's history, as it resulted in the abolition of slavery and the preservation of the Union. The Reconstruction era that followed was a time of rebuilding and reform, as the nation sought to heal the wounds of war and address the needs of the newly freed slaves.

The late 19th and early 20th centuries were a time of rapid industrialization and technological advancement. The United States emerged as a major world power, with its economy and military strength growing significantly. This period was also marked by social and political reforms, as the nation grappled with issues such as labor rights, immigration, and the role of government.

The 20th century has been a time of great challenges and achievements. The United States has played a leading role in the world, from the fight against fascism in World War II to the promotion of democracy and human rights in the Cold War. The nation has also made significant progress in social and economic development, with the establishment of a strong social safety net and the pursuit of civil rights for all.

As we look to the future, we can see that the United States continues to be a nation of opportunity and freedom. We have the resources, the talent, and the spirit to overcome any challenge and achieve our goals. The history of the United States is a testament to the power of the American dream, and it is a story that we can all be proud of.

BLISTER RUST AND WHITE PINE  
DEMONSTRATION AREAS  
(Data as of January, 1928. Revised 1930)

NEW YORK

1. Effect of Blister Rust on White Pine

Clinton County

(a) Reproduction:

A very good example of the effects of blister rust on small reproduction is on the John McCormick area, town of AuSable, Clinton Co., N.Y. The reproduction here is from seedlings to 10 years of age and it is safe to say that this particular area will go more than 75% infected.

(b) Medium aged pine:

On this same farm there is a very bad infection in a medium aged stand. Another area lies in the town of Peru known as Downes area. Inquire for Mr. J. J. Downs and he will direct you to the area. Bernard Fitzpatrick's area, about one-half mile from Peru village on road to Plattsburg, the infected area is near railroad track.

Data by H. W. Holcomb.

Columbia County

(b) Medium aged pine:

One mile south from New Lebanon, Columbia County; Quechy Lake road, on the property of Mrs. C.M. Newcombe. A pine grove adjacent to the road, on the same road near the Newcomb property, on the Dr. Bacon property on the left going south.

Data by Henry Dorr Jr., 1930.

Hamilton County

(a) Reproduction:

Back of Adirondack Hotel, Wells, N.Y., - Owner, Tom Vill.  
Back of Cashville House, Cashville, N.Y., - Owner, Abram Cashinsky.  
Back of Wadsworth Camp, Hope, N.Y., Owner, Wm. Wadsworth.

(b) Medium aged pine:

Sacandaga Forks Camp Site. Owner, State of New York.

Data by J.W. Charlton, Gloversville.

Otsego County

(b) Medium age Pine:

The best example in this country is half way between Mt. Vision and Laurens, about 400 feet from the highway, and about 20 miles from Oneonta.

Data by H. A. Williams.

New York (Cont'd)

1. Effect of Blister Rust on White Pine.

Saratoga County

(a) Reproduction:

The Lew McKnight lot in the town of Greenfield, one half mile south of Porters Corners shows a very heavy infection on pines about eight years old. This infection came from a very few smooth gooseberries in the fences. Most of the trees have trunk cankers and are beginning to die. Philip Barber of Corinth is acquainted with the location. Mr. N. G. Woodward who lives near the lot would also be able to show the infection to anyone interested.

Data by C.E. Baker.

Schoharie County

(a) Reproduction:

The best example in this county of the effect of white pine blister rust on reproduction is about 200 feet from the corner of the Duaneburg road at the turn to go to Schoharie village. This is about 40 miles from Albany.

Data by H.A. Williams.

Warren County

(a) Reproduction:

Pottersville, Located in the town of Chester. Beadanell places.

Dead and dying trees, oldest 8 to 10 years, found summer 1923. Most of the infection took place in 1919. Caused by a few Ribes rotundifolium. No eradication been done.

One mile on the Pottersville-Olmsteadville Road. Leave auto. Turn left - follow old wagon road about one mile until you come to large clearing which is filled with reproduction of white pine.

(b) Medium aged pine:

Town of Caldwell, On Truesdale Hill Road. Turn off Warrensburg-Lake George State Road at Smith Brook dirt road, about one-third mile south Schroon River bridge. Take first right hand dirt road. Follow about one mile to second house on left. Leave auto. Walk about ten rods beyond barn and on right of road over stone wall.

(c) Mature Pine:

Town of Caldwell. About two miles north of Lake George village, on Bolton state road to intersection of Stone school house road on left. Leave auto and on right side of school house road just above garage on right a few large pine infected both trunk and limbs.

See N.H. Harpp and E.G. Woodward, Warrensburg, N.Y.



New York (Cont'd)

1. Effect of Blister Rust on White Pine  
Warrensburg, N. Y.

McPhillips Plot. This plot of 1 acre was first examined in 1923 and again in 1926. There were 67 Ribes on the plot and pines ranging in age up to 30 years. In 1923, 65 per cent of the trees were infected and 46 per cent dead or dying. In 1926, 39 per cent of the trees were infected and 32 per cent dead or dying. The reduction in percentage of infection and of dead and dying trees during the 3-year interval is due to the death and disappearance of many of the trees found diseased in 1923 and the appearance of new seedlings upon which infection was not visible at the time of examination in 1926. This area demonstrates severe damage to a young mixed-aged white pine stand and the comparatively quick death and disappearance of young trees on unprotected areas.

Washington County

(a) Reproduction:

Area known as Becker Estate which is opposite Dome Island in Lake George, Town of Fort Ann Washington County. Can be reached by taking Ridge Road from Glens Falls to Pilot Knobb. Trail from Pilot Knobb to area. Reproduction here is very conspicuous by its absence. All reproduction here is either dead or infected from blister rust.

Data by I.S. Bowlby.

Area of land between forks of road on west shore of Sunderland pond going north from dam in town of Fort Ann has never been eradicated. In 1928 nearly every pine tree had trunk or branch infections. Can locate this area by inquiring at Fort Ann.

Data by R. Paige.

2. Areas Demonstrating Special Facts Regarding Blister Rust.

Clinton County

Location of area, Harkness area town of AuSable. This area is on dirt road leading from stone road, just below Clintonville to Harkness. There has also been a study made on the Downes area. For information on this ask Dr. H.H. York or Doctor Snell.

Data by H.W. Holcomb.

Dr. Snell gives the following data on Harkness area

"No. trees 214.	Percent of dead trees	11.2
Percent infected 76.1	" doomed "	48.6
	" of damage	59.8"

"The Harkness Plot, a rather poor stand to begin with, has been rendered completely useless by the rust, the same applies to the Downes Plot. If undisturbed the latter might have developed into a reasonably good stand."

Downes area, studied between 1923 and 1926, by Dr. W. H. Snell.

No. trees on plot	464	Percent dead trees	32.3
Percent infected trees	55.6	Percent doomed "	20.4
		Percent of damage	52.7

### Warren County

Horicon Area. A large area showing blister rust damage located at Horicon on the right, back of cemetery in field, on road to Hague.  
See N.H. Harpp or E.G. Woodward.

Dr. W.H. Snell who has studied this plot gives the following data in Journal of Forestry, April 1928.

"No. trees on Horicon Plot-	- - 1309
Percent infected trees	- - - 40.5
Percent dead trees	- - - - - 19.4
" doomed "	- - - - - 13.
" of damage	- - - - - 32.4

"On the Horicon Plot, only 300 mature and partly mature trees appear likely to survive. The 450 pines under 10 years of age are still susceptible to wholesale destruction. Not a tree was dead in 1920, but 11 percent had died by 1923 and 22 percent of the original stand are now dead."

Kelm Mountain infection, town of Warrensburg. Follow Schroom River road leading from Warrensburg to Horicon about three miles to farm owned by Lincoln Williams. Leave auto. Just beyond Williams' barn turn left on old wagon road. Follow for about one mile passing through old abandoned farm, continuing for about one half mile, and is located on right of road.

The following data is from Dr. W.H. Snell's studies 1923-1926. Published in April 1928 Journal of Forestry.

"No. trees on plot	1021	Percent doomed trees	60
Percent infected trees	96.2	" of damage	89.3
" of dead trees	29.3		

On the Kelm Mountain plot, the stand of over 1,000 trees 14-16 years of age is obviously ruined. About 90% of these trees will die of the blister rust. Not a tree was dead in 1920, 9% were dead in 1923 and 30% (21% more of the 1923 stand) were found dead in 1926. The 992 infected trees had nearly 9,000 blister rust cankers. Eight of these 16 year old trees had between 100 and 200 cankers per tree."

### Washington County

Special study of Ribes regrowth by Mr. E.W. Littlefield of Conservation Department. Area in town of Greenwich, northeast of Center Falls. Inquire at Greenwich Union Water Works Office, Greenwich, N.Y.

(b) Medium aged pine:

Area located in town by Fort Ann. Inquire at West Fort Ann Village for Harper Williams, who owns area. He will give directions to area.

Data by I.S. Bowlby.

### 3. Effectiveness of Ribes Eradication in Controlling Blister Rust.

(Special areas where bushes were pulled at least five years ago, where few or no new infections are present and pine reproduction since eradication is free of disease.)

#### Clinton County

The Harkness area, town of AuSable, gives a very good example. This area was eradicated in 1923. A study plot was put in on this area to determine the amount of infection since eradication, only 2 or 3 infections were found later than 1924.

Data by H. W. Holcomb.

#### Warren County

Chestertown, Darrowsville Area. Three miles south of Chestertown on Warrensburg State Road. The Ribes on this area of 152 acres were eradicated in 1918. To determine the effectiveness of control a study was made in 1923 by running a red-wide strip on a compass line across the adjoining uneradicated tract. The result of this study is given below on a per acre basis.

#### Comparison of Pine Infection Conditions on a Control Area and Adjacent Unprotected Tract at Chestertown, New York, September, 1923.

Area	Trees per Acre	%	Year Oldest Inf.	Number of Cankers by		Number of Ribes Seed- lings per acre since 1918
				1918 and before	Since 1918	
Not erad- icated	584	15	1915	8.5	118.0	38.0
Eradi- cated	319	1	1915	3.5	1.5	9.1

On the area cleared of Ribes in 1918 only one per cent of the trees were diseased, while on the adjoining uneradicated tract, 15 per cent of the stand was infected. From 1915 to 1918 the uneradicated area developed 8.5 cankers per acre against 3.5 cankers per acre for the eradicated tract. Since 1918, an average of 1.4 new cankers per acre have originated in the eradicated area, while in the unprotected tract 118 new cankers per acre have appeared. A Ribes survey carried on in combination with the pine infection study showed that since 1918, 38 Ribes seedlings per acre had developed on the uneradicated area against 9.1 on the eradicated area or a reduction of about 76 per cent. This area demonstrates that the eradication of Ribes has checked the spread of the rust on the control area and protected the pine from commercial damage.



New York

3. Effectiveness of Ribes Eradication in Controlling Blister Rust.

Warren County(Cont'd)

Fivaz' data follows:

Until 1930, the left or south side of the road in front of the old shack on the hill, had not been eradicated. A 1/2 acre plot laid out in pine reproduction in old hayfield across road from shack, had in 1929:

427 healthy trees	or 76%	
117 infected, alive	" 21%)	
16 " killed	" 3%)	24%
560 total trees, or	100%	

Four large gooseberry bushes were found within plot boundary, and many more in immediate vicinity.

On the eradicated side of the road, several hundred feet north or northeast of the old shack, another 1/2 acre plot had in 1929:

88 healthy trees	or 88%	
11 infected, alive	or 11%)	
1 " dead	" 1%)	12%

---

100 total trees, or 100%

One medium sized gooseberry bush was found on this plot, evidently missed in last working (1921). This bush would have been removed if open land had been reworked every 4 or 5 years, and infection on this plot would have been much less. This is a good illustration of the necessity for continuing blister rust control work on areas given initial control.

A few hundred feet to the north of the eradicated study plot, lie two more plots, also in the eradicated portion. One is a sample of an opening in a swale where hardwoods and brush were cut in winter of 1928-29. The other is a sample of a nearby undisturbed stand, similar in other respects. The former had in 1929, about 11,000 R. glandulosum seedlings per acre, of the current year's germination. No fruiting bushes on area since 1921 and perhaps since 1918, therefore, the seedlings grew from seeds that had been lying dormant in the forest floor. The other plot serves as a check, having no seedlings of the current year's germination.

Washington County

Area located directly west of Sunderland Point, town of Fort Ann. This belongs to the Adirondack Power and Light Company and was eradicated four years ago, or in 1923. Ribes regrowth is very scarce, likewise re-infection. This area can be reached by inquiring at West Fort Ann Village..

Data by I.S. Bowlby.

New York

County

Goldsmith State plantation - planted 1918 - eradicated same time. Very little infection present now. (1927) What infection there is can be accounted for by bushes that became established after eradication.

Data by W.F. Pratt, Conservation Dept. Saranac Lake, N.Y.

Holleran area just East of Northville. Extensive area of natural pine '22. R.W. Chambers area, Broadalbin. White Pine plantations, 1922.

5. Effect of Different Species of Infected Ribes on White Pine

Columbia County

Ribes nigrum. A bad infection on the pines of Mrs. C. M. Newcombe, one mile south on the New Lebanon-Quechy Lake road, which came from Ribes nigrum, located west of trees. This area was eradicated Aug. 25, 1930.

Data by Henry Dorr, Jr. 1930

Otsego County

Ribes nigrum. About five miles from Oneonta, on the road to Morris, known as the Strait lot.

Saratoga County

Ribes americanum. One of the pine lots of Fred Graves near Galway, just in back of the gravel pit near his home there is a very heavy infection on the pines which came almost entirely from Ribes americanum. Agent Barber or Mr. Graves could point out the infection. Lot was eradicated in 1926 with a three man crew.

Data by C. E. Baker.

Warren County

Ribes nigrum. Mature pine. Town of Caldwell. About two miles north of Lake George village, on Bolton State road to intersection of Stone school house road on left. Leave auto and on right side of school house road just above garage on right a few large pine infected both trunk and limbs.

See N.H. Harpp, E.G. Woodward, Warrensburg, N.Y.

Ribes odoratum. Darrowsville, town of Chester. Going from Warrensburg to Chestertown, turn left at Darrowsville. Proceed on dirt road straight ahead for about one mile to top of hill, and just beyond old buildings on right.

Ribes glandulosum. At Pack Forest, Warrensburg. Follow road beyond Woodward house. Cross bridge. Leave road, follow edge of swamp to reproduction.

Ribes rotundifolium. See Beadanell area near Pottersville. Located in the town of Chester. Dead and dying trees, oldest 8 to 10 years, found summer 1923. Most of the infection took place in 1919.

New York

5. Effect of Different Species of Infected Ribes on White Pine

Caused by a few Ribes rotundifolium. No eradication been done. One mile on the Pottersville-Olmsteadville road. Leave auto. Turn left - follow old wagon road about one mile until you come to large clearing which is filled with reproduction of white pine.

South of the Faxon plantation and extending to the Starbuck Farm is a magnificent even-aged stand of white pine which came up after logging about 1919. Along the fences and in a few other places are isolated Ribes each with a circle of infected pines. This demonstrates the power of a few bushes to cause appreciable damage under favorable conditions.

Washington County

Harper Williams' areas

Cynosbati and rotundifolium. Town of Fort Ann, inquire at West Fort Ann for owner. These are the most common Ribes in the county and can be found in nearly every pine area.

R. Paige, Fort Ann.

6. Effect of Blister Rust on White Pine Plantations.

Clinton County

Old stand of white pine, town of Peru, Moon's Corner about one mile east of Peru village on the Bear Swamp road.

Data by H.W. Holcomb.

Location of area. State prison area on road leading from Dannemora over the mountain to Chazy Lake, these plantations are very near the road. Doctor Snell has had some study plots in these plantations. An interesting fact is the exceptionally high altitude at which the infection was found.

Data by H.W. Holcomb.

Delaware County

The best example of this is 2 1/2 miles out of Delhi on the Meridale-Franklin road. The area is known as Delhi Watershed.

Data by H.K. Williams.

Franklin County

(a) State - cross clearing plantation on road from Saranac Lake, to Tupper Lake, N.Y. Some of the trees are going to recover due to competition resulting from mixture with red pine.

(b) Merrill's corner - planted about 1918 - gooseberries in immediate vicinity killed 70% of the original plantation. Ribes were in the open.

(c) Axton state plantation at Axton - trees reported to be of German stock and infected at time of planting. Age of trees - 25 yrs. Trunk cankers fruiting on many trees for a distance of 4 to 5 feet.

Data by W. F. Pratt, Saranac Lake, N.Y.



New York

6. Effect of Blister Rust on White Pine Plantations.

Saratoga County

The Fraker plantation in the town of Day, near the village of West Day shows a very heavy infection. The plantation is about 12 years old and is located on the mountain back of the village. Mr. Carl Fraker or Agent Barber, could direct anyone to the spot. The plantation is not so good now as formerly, due to the fact that a considerable number of the infected trees have been removed for specimen trees.

Data by C. E. Baker.

Warren County

Hurley Plantation

Town of Johnsburg, N.Y. Located on old dirt road from Riverside to North Creek leading by S.C. Armstrong Place. Turn right on dirt road just beyond Riverside. Follow dirt road about 3 1/2 miles to old abandoned wagon road to left, passing by old cellar hole where house burned. Leave auto, near cellar hole. A brook and a level piece of road beyond this intersection. One half mile to plantings from this point. Worst infection in northwest corner of planting.

McPhillips planting, town of Warrensburg, Warren County, N.Y. Located about five miles north of Warrensburg on Hudson River road leading to the Glen, just south of Pottertown school house on right.

See N.H. Harpp, E.G. Woodward, Warrensburg, N.Y.

7. Effect of Blister Rust on Ornamental Pine, and Cutting out of Cankers

Hamilton County

Blister rust infections on trees transplanted around Osborne Inn, at Speculator, N.Y. Cutting out of cankers on trees of J.B. Gardnier, between Speculator and Lake Pleasant.

Data by J.W. Charlton.

8. Location of Wild Ribes Species

Clinton County

americanum - town of AuSable, along river north of Harkness.

Data by H.W. Holcomb.

Columbia County

Ribes americanum found on farm of Earl Kilmer one mile south of Kinderhook House located on Albany Post Road. Ribes found along stream course in back field of farmstead.

Ribes cynosbati growing from a willow tree which has been pruned, heavily infected, on the left side of the New Lebanon-Quechy Lake road on the Dr. Bacon property, with bad infections on nearby pines.

Ribes vulgare growing in a swampy area on the Mrs. Harry Adams property, New Lebanon-Quechy Lake road, one and one half miles south of New Lebanon, running east from road near willows.

Data by H. Dorr, Jr., 1930.

#### Franklin County

Ribes cynosbati. In low land adjoining north side of planting which include State lots #67 and 68 twp. 18 MGT #1 - Very luxuriant growth here. Ribes prostratum - lot #69 - twp. 18 MGT #1 - between road and Jones pond many healthy patches. Franklin County.

Data by W.F. Pratt, Saranac Lake, N.Y.

#### Fulton County

General over district.

See J.W. Charlton, Gloversville, N.Y.

#### Otsego County

americanum - anywhere within three or four miles out of Oneonta.

glandulosum

do

cynosbati

do

Data by H.A. Williams, Oneonta, N.Y.

#### St. Lawrence County

americanum - Along Little & Grass Rivers at Canton - St. Lawrence County.

Black currants - Swamp at Tupper Lake with many of these bushes.

Data by W.F. Pratt.

#### Warren County

Ribes rotundifolium is the most common and can be found most anywhere in county.

Glandulosum is very abundant in small scattered areas. Can be found on Warrensburg-Chestertown State road from Pack Forest north to Devil's Kitchen on both sides of road, but not abundantly except in small areas.

Cynosbati and hirtellum are not very abundant in the county.

See N.H. Harpp, E.G. Woodward, Warrensburg, N.Y.

Cunningham Burn. Warrensburg. A dense stand of pine and hemlock was lumbered here in 1923 and 1924. On May 13, 1925, a severe fire swept through the slash, developing into a crown fire in the adjacent reproduction and pole stand. Ecological study plots were started in 1927 in several places on this burn to determine the effect of logging and fire on the Ribes population. The Ribes population in some parts of this burn increased to 270 bushes per acre within two years after the fire, mostly as a result of seedlings germinating from seed stored in the duff, that had escaped the fire. Part of the area has been planted to white pine which have not been protected and are consequently being killed by the rust. This area demonstrates the influence of lumbering and fire on Ribes restocking and the need for eradicating Ribes on areas to be planted with white pine.



New York

8. Location of Wild Ribes Species

Warren County

Hackensack Mt. Area. Warrensburg. Mature pine stand with shade form of Ribes. There are 160 to 165 Ribes per acre under the oldest stand. Seed beds were prepared under the stand to test the viable-seed content of the forest floor. On the hillside below a similar stand was lumbered and examination of one plot showed 1,305 Ribes per acre. Under advance reproduction the Ribes were only 40 per acre and dying from competition. This demonstrates effect of shade in retarding growth of Ribes population.

Washington County

americanum. Property of M.W. Sheehan, town of Kingsbury, N.Y. Take Vaughn's Corners road from Hudson Falls to second cross road. Pine lot is east of this point. Last year (1927) heavy blister rust infection on bushes. cynosbati can be found practically anywhere. rotundifolium in county. glandulosum Swamp at Sunderland Pond, town of Fort Ann. Inquire at West Fort Ann Village.

9. White Pine as a Crop

Columbia County

Also natural stand of mature timber of Joseph Young near Chatham Center. H. G. Strait

Dutchess County

White pine plantings on Dietrich Estate at Millbrook. pine is about 35 years old and shows up well. H.G. Strait.

Franklin County

About 15 acres of mature pine along sand esker 1/4 mile east of Saranac Lake, between D&H tracks and Moody Pond. Esker runs southeast from pond and has an elevation of 1600 feet. Mature pine runs from 10 to 18" D.B.H. Will probably cruise from 20 to 25 M per acre, allowing for 15% defect. In certain spots occasioned by Pines hotel building there is a very dense reproduction of white pine. Timber is very close to town. W.F. Pratt, Saranac Lake, N.Y.

Greene County

Natural stand of white pine of Ward Kurau at North Settlement. This stand is about 18 years old and is a fine example of natural regeneration. H. G. Strait.

Rensselaer County

A natural stand of white pines on the E.J. Loughran property, a quarter mile south of the Nassau-No. Chatham road. The stand is about 20 years old and shows up well from the road.

New York

9. White Pine as a Crop

Rensselaer County

White Pine Reproduction:

A wonderful growth, apparently from mature trees to the west on the property of A.J. Boyce and J.L. Sturtevant, town of Schodack, Rensselaer County. They are on rolling land facing east and also west of the mature trees. This can be reached from the west road along Lake Nassau, turning north from the Bend to East Schodack.

Warren County

Remington lot, Chestertown.

Located one half mile on left hand side of dirt road, leading from village of Chestertown to Friends Lake, known as Knapp Hill. This land was a wheat field the year following the Civil War. It seeded into white pine naturally and the best part of the stand has produced about 75,000 board feet per acre. The stand averages 33,000 board feet per acre. The Ribes on this tract were eradicated in 1918. They averaged about 80 per acre, but were so suppressed that they would not have been a hazard to the present stand. This demonstrates the growth white pine will make in 60 years under optimum conditions.

See N.H. Harpp & E.C. Woodward, Warrensburg, N.Y.

Diagonally across the road from the Remington lot at Chestertown is a white pine stand on land that was cleared and plowed about 65 years ago. Adjacent to this tract is a field which seeded to pine in 1919. This field was mowed in 1920, partly mowed in 1921 and 1922 and since then has not been touched. It is wonderful demonstration of the vigor of white pine in reproducing on worn-out cultivated land. West of this field is a white pine planting made in 1912 by Mr. Faxon using 3 year old transplants from the State Nursery. It is of average growth. South of the plantation and across the road is a 10-acre pasture which was cleared of all tree growth in 1902. It bears now a closed stand of white pine, all of natural seeding from seedtrees at the edges of the lot. It demonstrates the excellent natural regeneration of white pine in this region.

Starbuck Lot. Chestertown. Over-stocked second growth pine, about 50 years old. Dead trees partly removed for sugar wood. Growth stagnated by density; stand needed thinning at a much younger age. This demonstrates an exceptionally heavy stocking of pure pine and shows the potential possibilities of growing white pine as a profitable crop by applying simple management measures.

Thaxter Lot. Chestertown. Advance reproduction of white pine, exceptionally heavy, under scattered second growth left from last logging. Ribes were plentiful and caused considerable infection, but had been much reduced in size and number by competition when eradication was done in 1927. This demonstrates the value of management of pine to secure advance reproduction.

Washington County

Inquire at Griffith Lumber Company, Hudson Falls, N. Y.

New York

10. Old Growth White Pines.

Columbia County

On the estate of J. L. Hopkins, one and one half miles south on the New Lebanon-Quechy Lake road, on the east side of road. They are in the form of a crescent in back of the residence, about 30-35 years old. Some very nice specimens on farm of Wm. Von Alstyne - one mile south of Kinderhook on Albany Post Road.

Data by H.G. Strait.

Greene County

Fine specimens mature white pine near Oak Hill, on Niles farm.

Data by H.G. Strait, Hyde Park, N.Y.

Hamilton County

Few on estates in Raquette Lake section.

J.W. Charlton.

Lewis County

Medium sized area of second growth pine on Clarence Fisher Estate at Lyon Falls. This pine averages sound 24" D.B.H. Inquire at Lyons Falls, N.Y. for Fisher estate.

Data by I.S. Bowlby

See T.P. Woolschlager, Boorville, N.Y.

Rensselaer County

On the Totem Lodge property, Burden Lake, Nassau Township, Rensselaer County. This is a beautiful grove of pines, mature, and well kept for summer resort purposes and also adjacent to the golf course.

Saratoga County

In what is known as the Windfall or the Picnic grounds near Hagadorns Mills. One can see some of the old survivors of the virgin forests that once covered the county. The pines are over 150 feet in height and are so large in circumference that two men can not reach around them. Mr. Orlando Sciam of Hagadorns Mills, or Agent Barber could show the lot to anyone interested.

Data by C.E. Baker.

Ulster County

Near Mt. Tremper Ry. Station very nice specimen.

Data by H. G. Strait

Warren County

Pack Forest, 4 miles north of Warrensburg, N.Y.

See N.H. Harpp or E.C. Woodward, Warrensburg, N.Y.

Washington County

Small area, town of Cambridge, owned by A. Peters. Inquire at Coila, N. Y. for this area.



New York

11. White Pine Plantations of Different Ages and Special Significance as Regards Site, Growth, etc.

Clinton County

Town of Schuyler Falls. On the Pearlie Harris area, located on Mason Street, on road leading from Schuyler Falls to Morrisonville.  
H.W. Holcomb.

Columbia County

Wilson Powell plantings at Old Chatham on exposed sites. F. P.  
Wilcox plantings at Lafayetteville on poor soil and exposed sites.  
Harry Cornell plantings near Hillsdale, on good white pine land favorable soil and site. Lester Bashford demonstration planting on road between Hudson and Hillsdale, good example of taking care of waste land.  
Data by H.G. Strait, Hyde Park, N.Y.

Dutchess County

Dietrich plantings at Millbrook on poor soil.

Franklin County

(a) Mt. Pond State plantation - planted in 1908 - growth only fair - site quality III, using a 5 site quality basis.

(b) Goldsmith plantation - planted in 1918 - growth excellent - site quality #1.

W. E. Pratt, Saranac Lake, N.Y.

Fulton County

(a) 5 - 10 years about one mile north of Northville. Posted.

(b) 10- 20 years. 1. East of road 9 to 10 miles north of Northville.  
2. Chambers plantations Broadalbin  
3. Hayes Plantations (back of few rows of Scotch)  
Junction of Johnstown - Caroga L. rd. with  
J'town-Dolgeville road.

See J. W. Charlton.

Lewis County

(a) Adirondack Water Works. The village of Lowville has been planting every year on their watershed since 1911 in the town of Watson. White pine plantings can be found for each year since 1911. Take #4 road from Lowville to Crystal Dale where inquiry can be made.

(b) Plantation of Louis Archer in town of Watson. White pine planted in 1924, 25 & 27. Go from Lowville to Beech's Bridge. Cross bridge and take first left turn. Sign on lot.

(c) Watson School District Forest. Town of Watson has this school forest which has been planted by the school children. Planting started in 1923, '24, '26 & '27 and 38,000 white pines have been planted. From Lowville on #4 road to Forest Ranger Rennie's residence. Turn left and you are in the school forest.

Data by I.S. Bowlby,

See T.P. Wooschlager, Boonville, N.Y.

New York

11. White Pine Plantations of Different Ages and Special Significance as Regards Site, Growth, etc.

Otsego County

Clark's Estate at Cooperstown is a good demonstration of this.  
Data by H.A. Williams.

Rensselaer County

On the property of Dr. R.B. Weston, Town of Stephentown, east road from East Nassau, one and one quarter miles near dam and old mill site.  
Data by H. Dorr, Jr., 1930.

Saratoga County

Luther Forest Preserve. About 7,000 acres of plantations. Near Saratoga Springs on Saratoga Lake. A.F. Amadon or Mr. Luther could give the details.

Data by C.E. Baker.

Ulster County

Ashokan Reservoir plantings near Kingston.  
See H.G. Strait, Hyde Park, N.Y.

Warren County

Faxon Plantation. This plantation at Chestertown, New York, is one of the oldest white pine plantations in the State. It was planted in 1884 by transplanting native trees. The spacing is too wide according to present practice. In 1912 one-third of an acre was measured and found to yield at the rate of 23,000 board feet per acre at the age of 28 years. In 1918 Mr. Faxon stated he was offered \$500 per acre for the stumpage on the tract. There has been no thinning in this plantation and it is likely that the growth could have been accelerated by removing a portion of the trees during the last 10 years. The gooseberries and currants were destroyed in this planting before blister rust became established. About 90 wild gooseberries per acre were pulled but they were all very small, weak bushes, due to the density of the shade under the pines. It demonstrates one of the pioneer attempts at reforestation in New York.

Glens Falls Water Shed plantings, located at West Mountain, near Glens Falls. (See George H. McEchron, West Mountain, supervisor of plantings.)  
See N.H. Harpp or E.G. Woodward, Warrensburg, N.Y.

Washington County

(a) Planting at Cambridge Hospital, Cambridge, N.Y. Age 15. Good site.

(b) Planting made spring 1927. Owned by William Reid. Planted in town of Argyle. Two years seedlings used and mixed with red pine. Site is dry shale. Over 90% establishment and came through first season in fine shape. Inquire at Fort Edward post office for Will Reid Farm.

(c) Pine planting on road leading from Cossayuna to East Greenwich, this year 1930. Seventy-five percent of the pine was weeviled. Can locate this area by inquiring of owner at East Greenwich, J.C. McClarty.

New York

11. White Pine Plantations of Different Ages and Special Significance as Regards Site, Growth, etc.

Washington County

Good pine plantation Mary McClelon Hospital, Cambridge, N.Y.  
Inquire for Ragner Stinick at Hospital.

Data by R. Paige.

Westchester County

All types of soil and planting sites New York City plantings around various reservoirs in this county; five examples of reforestation during last 18 years.

Data by H. G. Strait, Hyde Park, N.Y.

12. White Pine Management

Franklin County

(a) White pine in mixture - plantation both sides of Malone highway - west side of Osgood pond - belonging to Phelps Smith - Part of plantation is in mixture with Scotch pine and north boundary has a Scotch pine border. The white pine near this border seems to have done better than the rest of the pine.

W.F. Pratt, Saranac Lake, N.Y.

Fulton County

Thinning. Gloversville watershed plantings.

Pruning. George Buseck plantations, Bleecker Ctr.

Release cuttings -

Pine in mixture white and Scotch.

1. Gloversville watershed, south side of storage reservoir.

2. Hayes plantations (back of few rows of Scotch)

Junction of Johnston - Caroga L. road with Johnstown Dolgeville road.

See J.W. Charlton, Gloversville, N.Y.

Warren County

Thinning - Bolton, on Albert Pratt place. Located about six miles from Warrensburg. Take Schroon River Road to Warren County Home. Cross bridge, turn left, follow river to Area.

Pruning - Warrensburg, (Harrington Hill near Judd Bridge) Daniel March. Also Faxton plantation, Chestertown.

Release cuttings - Glens Falls plantings (see area No. 11),

Pine in mixture - Pack Forest, North of Warrensburg.

See N.H. Harpp or E. C. Woodward, Warrensburg, N.Y.

Westchester County

Fine example of pruning on New York City plantings.

See H.G. Strait, Hyde Park, N.Y.



New York

13. Utilization of White Pine

Fulton County

No good examples at present. DeGolyer's mill on Phelps St. Mayfield road doing a little work.

See J.W. Charlton.

Warren County

Lumber and plug wood.

See E.G. Woodward, and N.H. Harpp.

Washington County

Area cut over in town of Fort Ann, near Kanes Falls. Belongs to Dan Evans. Inquire at Kanes Falls for this owner. Pine cut clear and used for "plug" wood. This stand was making its best growth and should never have been cut.

Data by I.S. Bowlby.

14. Special Enemies of White Pine

Clinton County

The one of most importance is the shoe string fungus (*Armillaria mellea*). There are two places of quite large size in Clinton County. One in the town of Ausable on Telegraph Street, property owned by Henry Reed and the other in the town of Peru on the Mason Brothers area, located east of Peru village, inquire at mill in Peru for directions to area.

See H.W. Holcomb.

Fulton County

Needle blight. General all over District. Sacandaga Park, Brownell Brothers, Extension Steele Ave., Bradalbin road one mile Groversville

White pine weevil. Bad all over district. Parsons Brothers plantation, one mile from Groversville Extension Easterly Street, Johnstown Watershed, Johnstown, Dolgesville road, R.W. Chambers plantation, Bradalbin.

Pales weevil -

Ants -

See J.W. Charlton

Lower Hudson Valley

Nearly all young white plantations and young reproduction in lower Hudson valley.

See H.G. Strait, Hyde Park, N.Y.

Lewis County

(a) White pine weevil. Scattered areas of pine where weevil has done damage. Plantation of 50 acres owned by S.F. Virkler. Go from Lowville to Beechs Bridge. Area is 4 miles East of Beechs Bridge.

Data by I.S. Bowlby.

See T.P. Woolschlagor, Boonville.

New York

14. Special Enemies of White Pine

Otsego County

White pine weevil. Within two miles of Oneonta, at a plot known as the Oneonta Water Shed. No demonstration for the others.

Data by H.A. Williams.

Rensselaer County

White pine weevil, on the property of Dr. R.B. Weston, town of Stephentown, as above described. He has cut out about two thousand weeviled tops to control the spread. A good location to study this practice and its effects.

Data by Henry Dorr Jr., 1930.

Warren County

White pine weevil. Moynahan's plantings located north of Glens Falls Ants. On Glens Falls plantings.

See E.G. Woodward or N.H. Harpp,  
Warrensburg, N.Y.

Washington County

(a) Needle blight. Prevalent all through county,, 1927. Can be found on almost any above-mentioned areas.

(b) White pine weevil. Quite prevalent through county in 1927. Special area - plantation owned by National Bank of Schuylerville. Town of Greenwich east of Middle Falls Village on sand plains.

Data by I.S. Bowlby.

15. Diseases and Pests on Conifers Other Than White Pine

Franklin County

Scotch pine rust control work near Lake Clear Nursery.

Fulton County

a. Cronartium comptoniae on Scotch pine. Chambers plantation Broadalbin

b. Dasyscypha calycina

c. Woodgate rust, Hayes plantations (back of rows of Scotch pine) Junction of Johnstown - Caroga L. Road with Johnstown-Dolgeville road.

d. Needle gall, pitch pine, 1/3 mile NE of road junction 1 1/2 miles west of railroad crossing on Broadalbin - Gloversville road.

See J.W. Charlton.

Oneida County

Scotch pine rust found at Masonic Home Camp, Round Lake near Woodgate, N.Y.

Saratoga County

Effect of Sweet Fern Rust on Scotch Pine. On the Stanton property near Moreau Pond just off the Saratoga Springs - Wilton road, there is a plantation of Scotch pine which shows an infection of about 12% by the sweet fern rust. Agent Barber, Ed Littlefield and Dr. York have the data.

See P. E. Barber, Saratoga Springs, N.Y.



New York

Effect of weevil on various species of conifers. On the Robert James Preserve between Saratoga Springs and Wilton one can see weevil damage on white pine, red pine, Scotch pine, Norway spruce; Ed. Littlefield has the data. On the James preserve there is also another trouble on the red pine which has as yet not been worked out. Ed Littlefield can also act as guide on this property.

Data by C.E. Baker.

Warren County

Cronartium comptoniae on Scotch pine. Some has been found on the Moynehan plantings at Glens Falls on Scotch Pine, also some in this locality on pitch pine.

See N.H. Harpp, or E.G. Woodward, Warrensburg, N.Y.

16. Special Forestry Features.

Saratoga County

Thomas C. Luther's plantations at Mechanicsville, around the southern part of Saratoga Lake.

About 1,100,000 pine trees were planted in 1928. 6,000 of 8,000 acres have all been planted in the last 15 years. 8,000,000 trees have been planted. Much of Mr. Luther's land was covered with blow sand.

Luther is a believer in selective cutting--he bought 65 acre tract, sparsely timbered, in 1901. He cut old timber for telephone poles, thus defraying the cost of the land. In 1906 he repeated his method, always allowing the young trees under twelve inches at the stump to remain. In 1914 he did the same thing, and the lot paid for itself a third time. From then on he has cut cordwood in small amounts yearly; now, if he so desires, he could cut 25,000 feet of oak and pine, plus 75 to 100 cords of wood, leaving a good covering of young trees.

White, red and Scotch pine constitute the majority of the planted trees. Nine years ago the Riga variety of Scotch pine was planted.

Luther believes in protection of the white pine from blister rust by destruction of the nearby currants and gooseberries.

The worst enemies are weevil and white pine blister rust. To guard against the weevil he plants white pine alternately with rows of Scotch or red pine.

1,000 to 1,200 trees are planted per acre; the cost of planting in 1924 was \$8.75 per acre, in 1926 \$9.67.

Mr. Luther is a lumberman as well as forest owner.

FOR ADDITIONAL DATA

New York

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New York

